

Biodiversity Record: New record of the awlslug, *Beckianum beckianum*, in Singapore

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Subjects: Beck's awlslug, *Beckianum beckianum* (Mollusca: Gastropoda: Achatinidae).

Subjects identified by: Chan Sow-Yan and Lau Wing Lup.

Location, date and time: Singapore Island, Marina Bay, compound of Gardens by the Bay; 3 November 2024; around 1535 hrs.

Habitat: Urban parkland on reclaimed land. Under black lava rocks in a plot of ornamental plants, under a sea mango tree (*Cerbera manghas* 'red' cultivar) and beside a footpath (Fig. 1)

Observer: Lau Wing Lup

Observation: More than ten live specimens were found crawling, apparently grazing, and one aestivating, under black volcanic rocks (Figs. 2–4). Three empty shells (Figs. 5–7) were found within one rock.



Fig.1. Some *Beckianum beckianum* were found under black lava rocks lining footpath. Fig. 2. A pair of live snails in-situ (Photographs by: Lau Wing Lup).

Freshly dead shells appear smooth, thin, yellowish white to pale brown, glossy, and hyaline (Figs. 5 & 6); worn out specimens appear whitish and opaque (Fig. 7). Adult shells have about nine convex and narrow whorls, separated by well-marked sutures, a rounded apex, and an ovate-oblong shape. Shell sculpture consists of a uniform sequence of axial and narrow ribs, from suture to suture, with the ribs nearest to the crenulate suture being the strongest. A thick distinctive subsutural spiral ridge can be seen on some whorls (Fig. 5). The umbilicus is closed. The peristome is simple, undeflected, and has a thin outer lip even in mature specimens. The aperture shape is oval, occupying about 20% of the entire shell height. The columella is straight without truncation. The periostracum is thin. Adult specimens attain a shell height of 9 mm.

In live individuals, the foot and outer body is light yellow. There are two pairs of tentacles, the upper one being much shorter and a lighter shade of yellow than the lower one. A black eyespot, surrounded by a halo of dark greyish yellow flesh, is situated at the tip of the upper tentacle. The innermost soft tissue is reddish brown and visible through the opaque shell (Fig. 4).

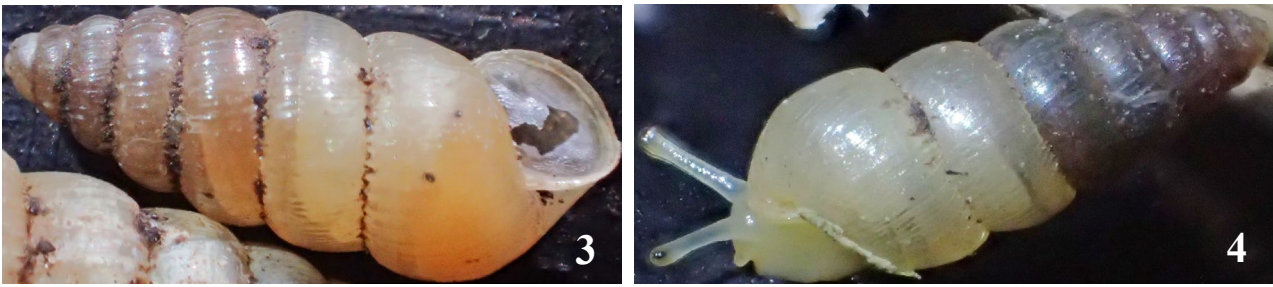


Fig. 3. Aperture view of an aestivating snail with partially broken epiphragm. Fig. 4. Dorso-lateral view of a gazing snail. Note that eyespots are located at the tip of the upper tentacles (Photographs by: Lau Wing Lup).

Remarks: *Beckianum beckianum* is herein recorded for the first time in Singapore (see Tan & Woo, 2010). Singapore samples were identified by referencing Simone & Casati (2013), and the original description of the species by Pfeiffer (1846, as *Bulimus beckianus*). *Beckianum beckianum* is believed to be native to Central and South America, but has been recorded in the Hawaiian and Caribbean Islands (Cowie, 2001; Salvador & Simone, 2015; Salvador et al., 2022). Its type locality is Opara Island in French Polynesia (Pfeiffer, 1846). The species inhabits caatinga, xeric shrubland and thorn forest, where it has been found inside caves (Simone & Casati, 2013). Virtually nothing is known about the behaviour of this diminutive species that tends to be overlooked by casual observers. The widespread distribution of this snail is indicative of horticultural shipments, anthropic transportation, and commerce. There seems to be no report of its presence in Asia hitherto. We believe that *Beckianum beckianum* is not native to Singapore, and has been introduced recently. It is not certain if the species has been established locally.

It is highly possible that *Beckianum beckianum* is a species complex. A freshly dead shell featured here is noted to have a distinctive internal sub-sutural spiral ridge on the lower whorls (Figs. 5, 6), a feature that was not mentioned in the original description, and not seen in the photographs of Simone & Casati (2013). Further studies are necessary to ascertain its actual identity.

Literature cited:

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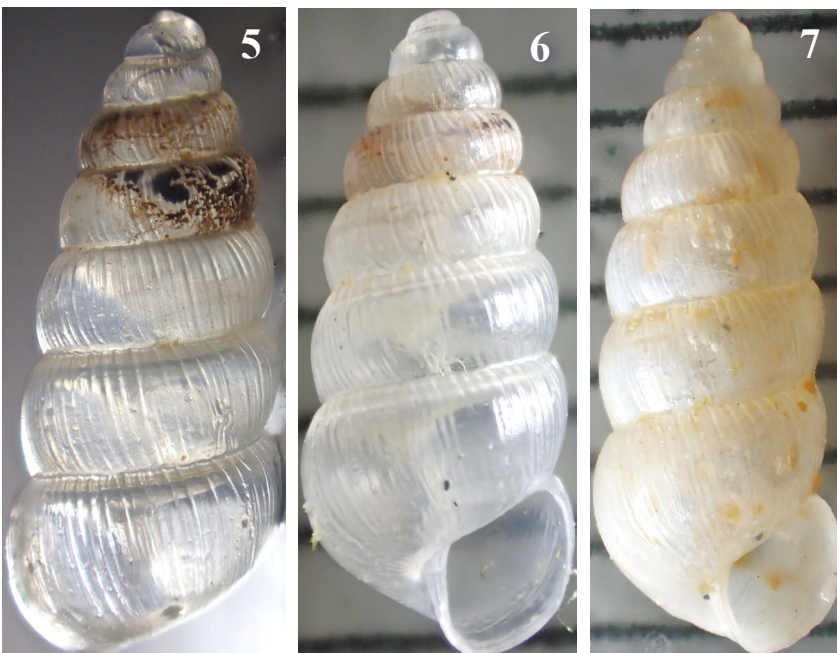


Fig. 5. Dorso-lateral view of a fresh dead *Beckianum beckianum* shell. A distinctive internal sub-sutural spiral ridge is present on the lower whorls.

Fig. 6. Aperture view of the same shell. Note uniform sequence of narrow axial ribs, from suture to suture, with the part nearest to the crenulate suture being the strongest.

Fig. 7. Aperture view of a larger shell that is thicker and more worn.

Space between black bars = 1mm.

(Photographs by: Lau Wing Lup)